

Zhen Zhou

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

2,414
citations

159585

30
h-index

233421

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84
all docs

84
docs citations

84
times ranked

1796
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of dissolved oxygen on performance and microbial community structure in a micro-aerobic hydrolysis sludge in situ reduction process. <i>Water Research</i> , 2016, 90, 369-377.	11.3	117
2	Microbial community structure of anoxic-oxic-settling-anaerobic sludge reduction process revealed by 454-pyrosequencing. <i>Chemical Engineering Journal</i> , 2015, 266, 249-257.	12.7	111
3	Effect of humic substances on phosphorus removal by struvite precipitation. <i>Chemosphere</i> , 2015, 141, 94-99.	8.2	90
4	Enhancement of sludge reduction by ultrasonic pretreatment and packing carriers in the anaerobic side-stream reactor: Performance, sludge characteristics and microbial community structure. <i>Bioresource Technology</i> , 2018, 249, 298-306.	9.6	90
5	Effects of side-stream ratio on sludge reduction and microbial structures of anaerobic side-stream reactor coupled membrane bioreactors. <i>Bioresource Technology</i> , 2017, 234, 380-388.	9.6	80
6	A micro-aerobic hydrolysis process for sludge in situ reduction: Performance and microbial community structure. <i>Bioresource Technology</i> , 2014, 173, 452-456.	9.6	74
7	Insight into the roles of packing carriers and ultrasonication in anaerobic side-stream reactor coupled membrane bioreactors: Sludge reduction performance and mechanism. <i>Water Research</i> , 2019, 155, 310-319.	11.3	74
8	Sulfate removal from wastewater using ettringite precipitation: Magnesium ion inhibition and process optimization. <i>Journal of Environmental Management</i> , 2017, 196, 518-526.	7.8	73
9	Sludge rheological and physiological characteristics in a pilot-scale submerged membrane bioreactor. <i>Desalination</i> , 2007, 212, 152-164.	8.2	70
10	Characterization of dissolved organic matter in the anoxic-oxic-settling-anaerobic sludge reduction process. <i>Chemical Engineering Journal</i> , 2015, 259, 357-363.	12.7	66
11	Coupling ammonia nitrogen adsorption and regeneration unit with a high-load anoxic/aerobic process to achieve rapid and efficient pollutants removal for wastewater treatment. <i>Water Research</i> , 2020, 170, 115280.	11.3	66
12	Effect of sulfate radical oxidation on disintegration of waste activated sludge. <i>International Biodeterioration and Biodegradation</i> , 2015, 104, 384-390.	3.9	63
13	Enhancing methane production of anaerobic sludge digestion by microaeration: Enzyme activity stimulation, semi-continuous reactor validation and microbial community analysis. <i>Bioresource Technology</i> , 2019, 289, 121643.	9.6	63
14	Influence of fermentation liquid from waste activated sludge on anoxic/oxic- membrane bioreactor performance: Nitrogen removal, membrane fouling and microbial community. <i>Bioresource Technology</i> , 2018, 250, 699-707.	9.6	58
15	Insights into conditioning of landfill sludge by FeCl ₃ and lime. <i>Water Research</i> , 2019, 160, 167-177.	11.3	56
16	Effects of potassium peroxydisulfate on disintegration of waste sludge and properties of extracellular polymeric substances. <i>International Biodeterioration and Biodegradation</i> , 2016, 106, 170-177.	3.9	55
17	Correlation of microbial community structure with pollutants removal, sludge reduction and sludge characteristics in micro-aerobic side-stream reactor coupled membrane bioreactors under different hydraulic retention times. <i>Bioresource Technology</i> , 2018, 260, 177-185.	9.6	52
18	Study on zeolite enhanced contact-adsorption regeneration-stabilization process for nitrogen removal. <i>Journal of Hazardous Materials</i> , 2008, 156, 317-326.	12.4	50

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19	Effects of packing carriers and ultrasonication on membrane fouling and sludge properties of anaerobic side-stream reactor coupled membrane reactors for sludge reduction. <i>Journal of Membrane Science</i> , 2019, 581, 312-320.	8.2	49
20	A two-stage desalination process for zero liquid discharge of flue gas desulfurization wastewater by chloride precipitation. <i>Journal of Hazardous Materials</i> , 2020, 397, 122744.	12.4	47
21	Optimization for zeolite regeneration and nitrogen removal performance of a hypochlorite-chloride regenerant. <i>Chemosphere</i> , 2017, 178, 565-572.	8.2	42
22	A novel sulfate removal process by ettringite precipitation with aluminum recovery: Kinetics and a pilot-scale study. <i>Journal of Hazardous Materials</i> , 2019, 365, 572-580.	12.4	42
23	Effects of hydraulic retention time on process performance of anaerobic side-stream reactor coupled membrane bioreactors: Kinetic model, sludge reduction mechanism and microbial community structures. <i>Bioresource Technology</i> , 2018, 267, 218-226.	9.6	41
24	Effects of alkalinity on membrane bioreactors for reject water treatment: Performance improvement, fouling mitigation and microbial structures. <i>Bioresource Technology</i> , 2015, 197, 217-226.	9.6	40
25	Sludge reduction and microbial structures of aerobic, micro-aerobic and anaerobic side-stream reactor coupled membrane bioreactors. <i>Bioresource Technology</i> , 2018, 268, 36-44.	9.6	38
26	Identifying microbial community evolution in membrane bioreactors coupled with anaerobic side-stream reactor, packing carriers and ultrasonication for sludge reduction by linear discriminant analysis. <i>Bioresource Technology</i> , 2019, 291, 121920.	9.6	35
27	Sludge reduction and microbial community structure in an anaerobic/anoxic/oxic process coupled with potassium ferrate disintegration. <i>Bioresource Technology</i> , 2017, 245, 954-961.	9.6	34
28	Sludge reduction by a micro-aerobic hydrolysis process: A full-scale application and sludge reduction mechanisms. <i>Bioresource Technology</i> , 2018, 268, 684-691.	9.6	33
29	Mainstream nitrogen separation and side-stream removal to reduce discharge and footprint of wastewater treatment plants. <i>Water Research</i> , 2021, 188, 116527.	11.3	33
30	Inhibitory effects of sulfide on nitrifying biomass in the anaerobic/anoxic/aerobic wastewater treatment process. <i>Journal of Chemical Technology and Biotechnology</i> , 2014, 89, 214-219.	3.2	32
31	Co-treatment of reject water from sludge dewatering and supernatant from sludge lime stabilization process for nutrient removal: A cost-effective approach. <i>Separation and Purification Technology</i> , 2017, 172, 357-365.	7.9	29
32	A cost-effective method for the treatment of reject water from sludge dewatering process using supernatant from sludge lime stabilization. <i>Separation and Purification Technology</i> , 2015, 142, 123-128.	7.9	28
33	Conditioning for excess sludge and ozonized sludge by ferric salt and polyacrylamide: Orthogonal optimization, rheological characteristics and floc properties. <i>Chemical Engineering Journal</i> , 2019, 373, 1081-1090.	12.7	28
34	Improving settleability and dewaterability of Friedel's salt for chloride removal from saline wastewater. <i>Desalination</i> , 2021, 509, 115070.	8.2	27
35	Simulation and performance evaluation of the anoxic/anaerobic/aerobic process for biological nutrient removal. <i>Korean Journal of Chemical Engineering</i> , 2011, 28, 1233-1240.	2.7	26
36	Modeling of multimode anaerobic/anoxic/aerobic wastewater treatment process at low temperature for process optimization. <i>Chemical Engineering Journal</i> , 2015, 281, 644-650.	12.7	26

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37	Biological nutrient removal in the anaerobic side-stream reactor coupled membrane bioreactors for sludge reduction. <i>Bioresource Technology</i> , 2020, 295, 122241.	9.6	23
38	Phosphonate removal from discharged circulating cooling water using iron-carbon micro-electrolysis. <i>Water Science and Technology</i> , 2014, 70, 524-532.	2.5	22
39	Evaluating influence of filling fraction of carriers packed in anaerobic side-stream reactors on membrane fouling and microbial community of the coupled membrane bioreactors. <i>Journal of Hazardous Materials</i> , 2020, 388, 122030.	12.4	22
40	Enhancing biodegradability of industrial park wastewater by packing carriers and limited aeration in the hydrolysis process. <i>Journal of Cleaner Production</i> , 2020, 264, 121638.	9.3	21
41	Recovering precipitates from dechlorination process of saline wastewater as poly aluminum chloride. <i>Chemical Engineering Journal</i> , 2022, 427, 131612.	12.7	19
42	Repurposing hydrolysis acidification tank in municipal wastewater treatment plants for sludge reduction and biological nutrient removal. <i>Chemical Engineering Journal</i> , 2020, 396, 125327.	12.7	19
43	Sludge reduction and performance analysis of a modified sludge reduction process. <i>Water Science and Technology</i> , 2014, 69, 934-940.	2.5	17
44	Performance and microbial community analysis of anaerobic sludge digestion enhanced by in-situ microaeration. <i>Journal of Water Process Engineering</i> , 2021, 42, 102171.	5.6	17
45	Understanding mechanisms of sludge in situ reduction in anaerobic side-stream reactor coupled membrane bioreactors packed with carriers at different filling fractions. <i>Bioresource Technology</i> , 2020, 316, 123925.	9.6	16
46	Process optimization to enhance utilization efficiency of precipitants for chloride removal from flue gas desulfurization wastewater via Friedel's salt precipitation. <i>Journal of Environmental Management</i> , 2021, 299, 113682.	7.8	16
47	Bacterial and Microfauna Mechanisms for Sludge Reduction in Carrier-Enhanced Anaerobic Side-Stream Reactors Revealed by Metagenomic Sequencing Analysis. <i>Environmental Science & Technology</i> , 2021, 55, 6257-6269.	10.0	15
48	Applying organic polymer flocculants in conditioning and advanced dewatering of landfill sludge as a substitution of ferric trichloride and lime: Mechanism, optimization and pilot-scale study. <i>Chemosphere</i> , 2020, 260, 127617.	8.2	14
49	A novel anoxic/aerobic process coupled with micro-aerobic/anaerobic side-stream reactor filled with packing carriers for in-situ sludge reduction. <i>Journal of Cleaner Production</i> , 2021, 311, 127192.	9.3	13
50	Recovering chemical sludge from the zero liquid discharge system of flue gas desulfurization wastewater as flame retardants by a stepwise precipitation process. <i>Journal of Hazardous Materials</i> , 2021, 417, 126054.	12.4	13
51	Membrane fouling in anoxic/oxic membrane reactors coupled with carrier-enhanced anaerobic side-stream reactor: Effects of anaerobic hydraulic retention time and mechanism insights. <i>Journal of Membrane Science</i> , 2021, 637, 119657.	8.2	13
52	Elucidating the intensifying effect of introducing influent to an anaerobic side-stream reactor on sludge reduction of the coupled membrane bioreactors. <i>Bioresource Technology</i> , 2021, 342, 125931.	9.6	13
53	Evaluation of nutrient removal performance and resource recovery potential of anaerobic/anoxic/aerobic membrane bioreactor with limited aeration. <i>Bioresource Technology</i> , 2021, 340, 125728.	9.6	12
54	Optimization of phosphorus removal from reject water of sludge thickening and dewatering process through struvite precipitation. <i>Desalination and Water Treatment</i> , 2016, 57, 15515-15523.	1.0	11

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55	Comparison on treatment strategy for chemical cleaning wastewater: Pollutants removal, process design and techno-economic analysis. <i>Journal of Environmental Management</i> , 2019, 235, 161-168.	7.8	11
56	Partial nitrification performance and microbial community evolution in the membrane bioreactor for saline stream treatment. <i>Bioresource Technology</i> , 2021, 320, 124419.	9.6	11
57	COD fractionation and parameter estimation for combined sewers by respirometric tests. <i>Journal of Chemical Technology and Biotechnology</i> , 2008, 83, 1596-1601.	3.2	10
58	Treatment of chemical cleaning wastewater and cost optimization by response surface methodology coupled nonlinear programming. <i>Journal of Environmental Management</i> , 2017, 198, 12-20.	7.8	10
59	Simultaneous removal of phosphorus and dissolved organic matter from a sludge in situ reduction process effluent by coagulants. <i>RSC Advances</i> , 2017, 7, 42305-42311.	3.6	10
60	Enhanced nutrient removal from stormwater runoff by a compact on-site treatment system. <i>Chemosphere</i> , 2022, 290, 133314.	8.2	10
61	Nitrification kinetics of a full-scale anaerobic/anoxic/aerobic wastewater treatment plant. <i>Desalination and Water Treatment</i> , 2015, 56, 2046-2054.	1.0	9
62	Reusing effluent of flue gas desulfurization wastewater treatment process as an economical calcium source for phosphorus removal. <i>Water Science and Technology</i> , 2017, 76, 1429-1435.	2.5	9
63	A full-scale survey of sludge landfill: sludge properties, leachate characteristics and microbial community structure. <i>Water Science and Technology</i> , 2019, 80, 1185-1195.	2.5	9
64	Sulfate removal by Mg-Al layered double hydroxide precipitates: Mechanism, settleability, techno-economic analysis and recycling as demulsifier. <i>Journal of Cleaner Production</i> , 2020, 242, 118503.	9.3	9
65	Inhibitory effects of Ca ²⁺ on ammonium exchange by zeolite in the long-term exchange and NaClO ₂ -NaCl regeneration process. <i>Chemosphere</i> , 2021, 263, 128216.	8.2	9
66	Effects of microplastics accumulation on performance of membrane bioreactor for wastewater treatment. <i>Chemosphere</i> , 2022, 287, 131968.	8.2	9
67	Advanced treatment of effluents from an industrial park wastewater treatment plant by ferrous ion activated persulfate oxidation process. <i>Water Science and Technology</i> , 2016, 74, 535-541.	2.5	8
68	Fouling characterization and aeration performance recovery of fine-pore diffusers operated for 10 years in a full-scale wastewater treatment plant. <i>Bioresource Technology</i> , 2020, 307, 123197.	9.6	8
69	Responses of microbial structures, functions and metabolic pathways for nitrogen removal to different hydraulic retention times in anaerobic side-stream reactor coupled membrane bioreactors. <i>Bioresource Technology</i> , 2021, 329, 124903.	9.6	8
70	Compact wastewater treatment process based on abiotic nitrogen management achieved high-rate and facile pollutants removal. <i>Bioresource Technology</i> , 2021, 330, 124991.	9.6	7
71	Optimization of a full-scale Unitank wastewater treatment plant for biological phosphorus removal. <i>Environmental Technology (United Kingdom)</i> , 2014, 35, 766-772.	2.2	5
72	A comprehensive method for the evaluation of biological nutrient removal potential of wastewater treatment plants. <i>Desalination and Water Treatment</i> , 2015, 53, 2931-2938.	1.0	5

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73	Emerging wastewater treatment strategy for efficient nitrogen removal and compact footprint by coupling mainstream nitrogen separation with chemical coagulation and biological aerated filter. <i>Bioresource Technology</i> , 2021, 320, 124389.	9.6	5
74	Recovering double-metal hydroxides precipitate from desalination process of saline wastewater as conditioner for excess sludge dewatering. <i>Chemical Engineering Journal</i> , 2022, 434, 134787.	12.7	5
75	Insights into the dewatering of excavated landfill sludge conditioned by polyferric silicate sulfate. <i>Journal of Environmental Management</i> , 2022, 315, 115147.	7.8	5
76	Recovery of ammonia nitrogen and magnesium as struvite from wastewaters in coal-fired power plant. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2019, 14, e2355.	1.5	3
77	Sludge reduction and microbial structures in MBRs: Features influencing the sustainable adoption of MBRs. , 2020, , 75-94.		2
78	Conditioning of raw sludge and thermally hydrolyzed sludge by ferric salt and cationic polyacrylamide: rheological analysis. <i>Water Science and Technology</i> , 2021, 83, 1566-1577.	2.5	2
79	Fouling Identification for Nanofiltration Membrane and the Potential Reduction of Pollutants in the Leachate by Using Fe/Al/PAC Coagulation. <i>Sustainability</i> , 2021, 13, 1114.	3.2	1
80	The application of membrane bioreactor technology to the treatment of wastewater from a multifunctional supermarket. <i>Environmental Progress and Sustainable Energy</i> , 2010, 29, 52-59.	2.3	0
81	Simulation of sludge blanket height in clarifiers. <i>Journal of Shanghai University</i> , 2009, 13, 287-291.	0.1	0